



## **Case study**

**Project brief: ALS** 

(International) Ltd., UK - completed the delivery of an ME310SE Series 24500 TBM (7.8m diameter soft ground earth pressure balance tunnel boring machine) plus back up system from Canada to Argentina on behalf of client LOVAT Inc., Canada - a wholly owned division "company" of Caterpillar Inc.

The shipment comprised of 13 break bulk items with a maximum unit weight of 86,000 kgs and maximum width 502cm, plus a total of 40 x 40ft open-top container loads.





Canadian regulations restricted the road haulage of the heavy and oversize break bulk items from LOVAT's factory only to the nearest railhead, approx. 12 miles (19 km) from the factory. The break bulk loads were then transferred to flatbed railcars and carried by rail through to the port of Halifax NS.

ALS employed a chartered heavy lift vessel to deliver the break bulk loads, totalling 533 tonnes/1,003 cbm, from Halifax to Buenos Aires.

ALS took full responsibility for the planning and execution of this contract from LOVAT's factory through to Argentina, working closely with ALS' Canadian partners to ensure an incident-free delivery within budget.

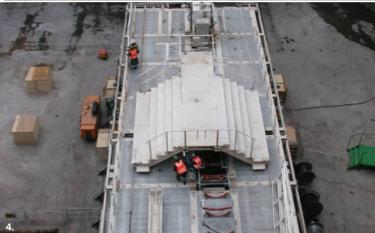
The TBM had been ordered for employment in the construction of the 'Arroyo Maldonado Flood Relief Tunnel' in Buenos Aires.











- 1. Shield segment preparation at job site
- 2. Shield segment awaiting delivery
- 3. Cutter-head center on way to installation site
- 4. "Big Softie" ready to commence work

